

LAKE HUGHES

AQUATIC PLANT & ALGAE SURVEYS - 2023

SURVEY: The entire shoreline was continually surveyed during the summer by Joanne Hayes. The deeper waters where aquatic plants are growing was surveyed using an aquascope on several days in mid August (Heather McCullough).

The first survey was done by the CRE Laurentides in 2016 (July 13th, 15th, & 26th)

The aquatic plants have been monitored annually since. This is the second consecutive year that a survey & inventory has been done by the volunteer plant team. (July & Aug 2022 & 2023)

PLANT TEAM:

Heather McCullough & Joanne Hayes (CRE Laurentides trained volunteers)

Christine Porteous

2023 PLANT & ALGAE SURVEYS

- **No invasive or suspicious aquatic plants were identified.**
- The 3 plant surveys have identified 26 plant groups (33 plants).
- No indigenous water-milfoils were found.

CONCERNS & OBSERVATIONS:

The **Large-leaf Pondweed** (*P. amplifolius*) was detected for the first time in 2022. There has been an increase in plant growth this year – found in the bay starting after the Mannard (Regatta) Beach area. This plant is of concern due to the large size of the plant. This Pondweed has become a nuisance in some other lakes and is considered problematic by the environmental organization RAPPEL. **One way this plant propagates is by fragments so gathering fragments attached to motors and floating on the lake could help slow down the spread.**

There was a very considerable increase in the following two plants **Bladderwort** and **Hornwort (Coontail)**. During the first survey in 2016 only a few plants were found. There has been a slight increase over the years; however, during the past year, there has been an enormous increase in two areas in front of the inlet stream and the Pte au Vent stream. It was also found for the first time growing at the corner of the bay (Ch Lac Hughes near Pine Point) and along the side of the bay (Ch Lac Hughes Ouest towards Pte au Vent). These two plants are found in nutrient rich waters – according to RAPPEL they are eutrophic lake plants.

Another observation by residents is a recent decrease in the floating lily-pad (Watershield). It is felt that the muskrats are consuming them.

ALGAE: The entire shoreline was checked for algae in early September and again in early October. There was much less algae compared to last year except at the guardrail where the rust colored algae was very present in late winter on the snow and again periodically during the summer. This is a major resident concern and will be monitored. This algae, in smaller quantities, has been present for many years and is due to iron rich runoff according to a biologist. At the end of the summer there was a large amount of bright green filamentous algae in Captains' Bay (wetland shoreline). This is not concerning or problematic algae. None of the streams had any observable algae during the summer or fall.

PHOSPHORUS: An increase in phosphorus is seen right away by an increase in algae and later by an increase in aquatic plants. The phosphorus levels increased dramatically in Lake Hughes from Aug 2021 to Aug 2022. This was accompanied by a huge algae outbreak in late summer 2022 which was not considered toxic and this year 2023 in a significant increase in submerged aquatic plants.

Phosphorus levels were also checked in several streams – the level in the Pte au Vent Stream was very high – this will be monitored.